

6.4 Commercial Feed Lots

6.4.1 Purpose

These regulations are designed to allow feed lots for feeding of livestock, furbearers and poultry at the same time protect the adjoining uses against odor, run off and other incompatible characteristics associated with feed lots.

6.4.2 General Requirement

- (1) All feed lots as defined by this code are only permitted as conditional uses subject to the provisions of this code and the requirements of the North Dakota State Health Department.
- (2) All feed lots shall be designed and constructed with all reasonable preventative measures to avoid surface run-off including construction of sealed collection and retention ponds.
- (3) Where appropriate, there shall be sufficient drainage to avoid pollution of the ground and surface water from the standing effluents.
- (4) Feed lots shall not be placed in the floodplains.
- (5) The applicant, as a part of site approval application, shall submit a plan for removal and disposal of the liquid and solid waste generated by the feed lot.
- (6) An "animal unit equivalent" is a unitless number developed from the nutrient and volume characteristics of *manure* for a specific *livestock* type. The term "animal units" is used to normalize the number of animal (e.g., head) for each specific *livestock* type which produce comparable bulk quantities of *manure*. The animal unit equivalents for types of *livestock* and the numbers of *livestock* for facility size thresholds of 300 animal units (a.u.), and so forth, are listed in the following table.
- (7) No feed lot shall be located nearer than .50 miles from a residence other than owner/operator's residence, residential development in an unincorporated area or city limits in the county, park, cemetery, church, or school.

**Equivalent Numbers of the Livestock (hd)
for Four Sizes (a.u.) of Animal Feeding Operations**

Livestock Type	Animal Unit Equivalent	300 a.u.	1,000 a.u.	2,000 a.u.	5,000 a.u.
1 horse	1.0	300 hd	1,000 hd	2,000 hd	5,000 hd
1 dairy cow	1.33	225	750	1,500	3,750
1 mature beef	1.0	300	1,000	2,000	5,000
1 beef feeder - finishing	1.0	300	1,000	2,000	5,000
1 beef feeder - backgrounding	0.75	400	1,333	2,667	6,667
1 mature bison	1.0	300	1,000	2,000	5,000
1 bison feeder	1.0	300	1,000	2,000	5,000
1 swine, >55 lbs.	0.4	750	2,500	5,000	12,500
1 goose or duck	0.2	1,500	5,000	10,000	25,000
1 sheep	0.1	3,000	10,000	20,000	50,000
1 turkey	0.2	1,500	5,000	10,000	25,000
1 chicken	0.1	3,000	10,000	20,000	50,000

SETBACK DISTANCES FOR ANIMAL FEEDING OPERATIONS

NUMBER OF ANIMAL UNITS	HOG OPERATIONS	OTHER OPERATIONS
100-299	1 mi.	0.50 mi.
300 – 999	2 mi.	1 mi.
1000 or more	2 mi.	2 mi.

6.4.3 Animals Prohibited

Dangerous and/or exotic animals such as but not limited to lions, tigers, cheetahs, bears, venomous reptiles, alligators, etc. are prohibited except for traveling fairs, circuses, and brief veterinary care unless a special use permit is obtained.

6.5 Mining of Sand, Gravel, Clay and General Ground Excavation

6.5.1 Purpose

The purpose of these provisions is to provide for mining and extraction of materials for commercial uses, and to protect and preserve agricultural land by guiding such operations, and to minimize the traffic, noise, dust, fume and vibration impact on the adjoining uses and the city.

6.5.2 Site Approval Requirements

All excavation sites require approval by the County Commission. See definitions of "commercial gravel pit" and "private gravel pit".

6.5.3 Data Submission Requirements

- (1) A site plan for operation and reclamation of the mined land including maps showing location of the land to be mined, location of roads and point of access to the site, adjacent residences within one mile of site, maps showing the existing and proposed contours after the land is mined and a time table for operation of the site. There will be a minimum 1 to 3 slope. All top soil shall be replaced and planted to natural protected vegetation.
- (2) Reclamation of the site shall be completed within one year of the resource being exhausted, abandoned or closure of the operation of the site.
- (3) Proof of compatibility with the existing landform including the vegetation, surface and ground water resources.
- (4) Bonding required as follows:

0 – 19 acres	no bond
20 – 39 acres	\$50,000
40 + acres	\$100,000

6.5.4 Proximity to Existing Uses

The operation of sand and gravel sites shall not be nearer than five hundred (500) feet from any residential uses.

6.5.6 Permit Requirements

Any person who operates a sand and gravel operation shall obtain a permit from the planning and zoning committee before starting any mining or excavation of the sand and gravel sites, and after review by the planning and zoning board and approval by the County Commission.

6.6 Wellhead Protection

6.6 .1 Purpose

The purpose of this regulation is to preserve and maintain the integrity of the municipal ground water supplies, both as to quantity of ground water and quality of ground water.

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6.6 .2 General Requirements

A conditional use permit shall be required to use ground water, other than for home and farm livestock, but not for commercial feed lots or irrigation, by water well or otherwise. The following conditions must apply before a permit is issued:

1. Must be in compliance with North Dakota State Law, the Health Department and the State Water Commission regulations.
2. Must be located at least 1320 feet from a municipal well or rural water system well.

6.6.3 Special Requirements – Irrigation systems, Mining, Extraction of Gravel/or Clay

Before a conditional use permit may be issued for irrigation systems, the following conditions must apply, in addition to the general requirements in 6.6.2, as follows:

1. For irrigation on land overlaying an unconfined aquifer of high vulnerability, as defined by the North Dakota State Department of Health, the following conditions will apply within 2,640 feet of public water systems wells.
2. The applicant will install monitoring wells up gradient and down gradient of the irrigated land at his/her expense.
3. The applicant will provide monthly reports twice a year, in the spring and fall, of nitrate as nitrogen concentration to the county planning and zoning administrator from a state approved laboratory.
4. The nitrate as nitrogen level will be reported as the moving average of the past three readings. The compliance monitoring well will be screened at the depth of 20 feet below the water table.

If the nitrate level (nitrate as nitrogen) at the compliance monitoring well exceeds the concentration of 4.0 mg/l, the producer must submit a letter to the county municipal or rural district describing management changes that will be implemented.

If the nitrate level (nitrate as nitrogen) at the compliance monitoring well exceeds 6.0 mg/l, irrigation will cease until the concentration level falls below the concentration of 4.0 mg/l.

A conditional use permit shall be obtained for mining, extraction of gravel or clay within a municipal or rural water supply well zone of contribution.

The following conditions must apply before a permit is issued:

1. Must be in compliance with North Dakota State Law, the North Dakota Health Department and the State Water Commission regulations.

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2. Must be located at least 2,640 feet from a municipal or rural water system well, or outside the zone of contribution as established by the planning documents of the system and the North Dakota State Health Department, whichever is furthest away from the well.

6.7 Sanitary Landfills and Solid Waste Sites

6.7.1 Compliance with State Laws and Rules

Any person who operates sanitary landfills or solid waste sites shall comply with all North Dakota state laws and administrative rules set forth by the state agencies.

6.7.2 County Code and Procedures

The county hereby adopts solid waste provisions, subject to the Provisions of NDCC 11-33-20, to assure meeting the purposes of this code and the County Comprehensive Plan.

6.7.3 Purpose

The purpose of these provisions is to protect public health, ground and surface water, conflict with present land uses and preservation and protection of natural resources in the county.

6.7.4 Site Approval Requirements

All solid waste sites require a review and approval by the County Commission.

6.7.5 Collection of Solid Waste

1. Non-farm commercial and industrial businesses must have a solid waste disposal plan.
2. No person may collect or transport waste materials for a fee without obtaining a permit from Barnes County.
3. Every hauler shall provide for the collection of solid waste and recyclable materials appropriate vehicles, receptacles, containers meeting the requirements of Barnes County, and the requirements of the State of North Dakota. Such vehicles shall have leak-resistant bodies of easily cleanable construction, completely covered with metal, heavy canvas or other suitable covering.
4. All recyclable materials shall be transported to an approved recycling facility.
5. Regulated infectious waste may not be subject to compaction during loading, unloading and transit and must be handled carefully.